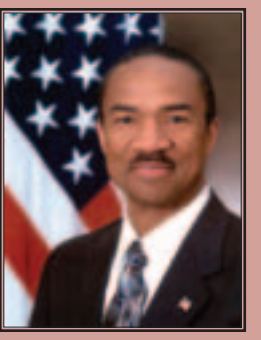
From the Army Acquisition Executive

How S&T Is Enabling the Current and Future Force



One of my job's privileges is the opportunity to meet the courageous men and women who serve our Nation. They are smart, resourceful and confident. They wield with extraordinary ease the most technologically advanced weaponry on Earth, and they do so with great skill. Our Soldiers take the technology that we provide them and use it — not only in the way it was designed, but in other innovative ways as well. Let me give you an example.

I enjoy trivia, and one of my favorite factoids involves a picture of Soldiers on horseback. My question: "When was the horse last used in combat?" I get various answers, but the right one is "during *Operation Enduring Freedom*." In the early days of the war in Afghanistan, we saw our Special Forces on horseback using satellite communications to connect 19th century horse cavalry with 20th century B-52 bombers to produce a 21st century capability that put bombs on target with precision. It was a very dramatic example of our application of technology combined with the resourcefulness and skill of our warfighters.

Our Soldiers embrace new technology. In their drive on Baghdad, the 3rd Infantry Division (3ID) took with them every piece of new technology available. We saw the Army's first combat employment of Blue Force Tracking (BFT) — satellite communications on the move — and it was a huge success. For example, during a blinding sandstorm that lasted for several days in late March 2003, a U.S. radar plane detected an Iraqi Republican Guard unit maneuvering near U.S. troops. Bombers moved in to attack using satellite-guided bombs that were unaffected by poor visibility. BFT ensured that commanders knew the locations of friendly units. Both our ground forces and our aircraft pilots praised this situational awareness (SA) tool.

Many advancements have been made in the last few years, including the comprehensive, Joint and rapid work to combat improvised explosive devices (IEDs) through the Joint IED Defeat Task Force; to provide improved individual Soldier equipment through the Rapid Fielding Initiative; and to introduce new technological solutions to the battlefield through Rapid Equipping Force initiatives.

Early last year, nearly every IED attack resulted in a coalition casualty. Today, through personal body armor, improved protection in vehicle up-armoring, electronic countermeasures, greater SA and better training and operational focus, we have significantly reduced this ratio to about one casualty for every four IED detonations — and we will continue to drive down this ratio. We do this through a holistic approach to force protection — personal body armor, vehicle armor and electronic shields.

The Army has balanced materiel solutions with innovations in both the organization of our forces and in unit level tactics and training. At Fort Polk, LA, every Army Soldier bound for Iraq now undergoes training to counter roadside bomb attacks.

Our Soldiers are better protected and better trained because of the smart application of technology. Remote-controlled robots inspect bombs up close and keep our Soldiers out of harm's way. These robots, and others like the PackBot that was first used to clear caves in Afghanistan, are making a huge difference.

It is clear that we have to think out of the box when it comes to force protection. A new, low-cost, unmanned drone equipped with high-quality surveillance is now being tested at Yuma Proving Ground, AZ. For a moving convoy, this technology would provide a live video feed directly from the drone flying above to tell our Soldiers what danger might be down the road before they encounter it.

Because of our experiences in Iraq, we are getting a clear picture of what kind of power a fully networked system could bring to the commander and the Soldier. In the same way the 3ID leveraged new technology in its drive on Baghdad, we will take the Future Combat Systems (FCS) components as they become available and spiral them into the Current Force and reorganize the Current Force into modular forces. FCS is our largest, most promising science and technology investment. It consists of 18 systems, plus the continued expansion of the network and capabilities to the Soldier — all designed to function as a single, integrated system. Fielding FCS is essential to providing the kind of lethal, agile forces we envision are required for future full-spectrum operations.

As ongoing operations in Iraq and Afghanistan illustrate, our technological and training superiority is a critical ingredient to our battlefield success. It must be maintained. By focusing development efforts on promising technologies and spiraling these enhanced capabilities into the Current Force, our Soldiers retain technological overmatch. Just as our Soldiers are adapting to meet challenges of contemporary, asymmetric operating environments, our Army is also changing how innovative technologies are being developed and introduced to our combatant commanders and their warfighters.

It is very important that we work hard together to provide our Soldiers what they need as quickly as possible. As Army Vice Chief of Staff GEN Richard A. Cody says, "All our Soldiers ask of us is great leadership and the right equipment and training. We can't let them down."

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